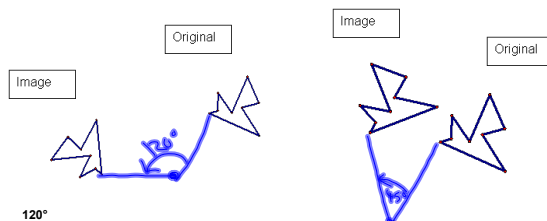


11.8 Rotations

A **rotation** is a transformation that turns the original about a fixed point, known as the center of rotation.



The angle of rotation can be clockwise or counterclockwise.

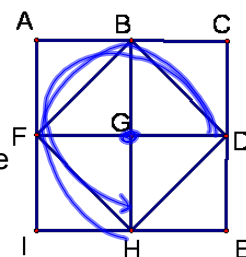
The rotations above are which direction? counterclockwise

1. 90° counterclockwise rotation of H about G.

F

2. 270° counterclockwise rotation of D about G.

H

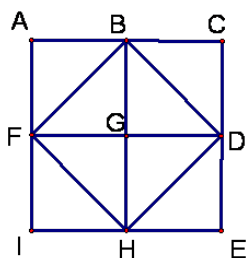


Moveable points

3. 90° clockwise rotation of FA about G. BC

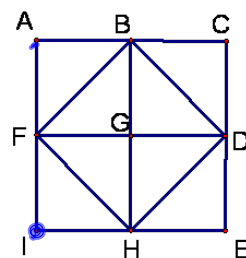
4. 90° clockwise rotation of FH about G. BF

5. 180° rotation of $\triangle BGD$ about G. $\triangle HGF$



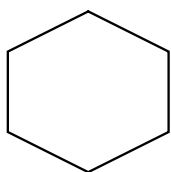
6. 180° rotation of $\triangle FHI$ about G. $\triangle DCB$

7. 90° counterclockwise rotation of EI about I. AI



Rotational Symmetry-when an image is rotated onto itself in 180° or less.

Do these shapes have rotational symmetry?



yes



no

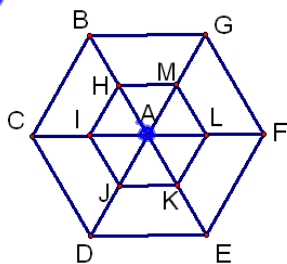


no



yes

$360 \div 6$
 60°
 120
 180
 240
 300
 360



Assignment:
 p636-637
 3-12, 22-26

Attachments

rotations_notes_moveable.gsp